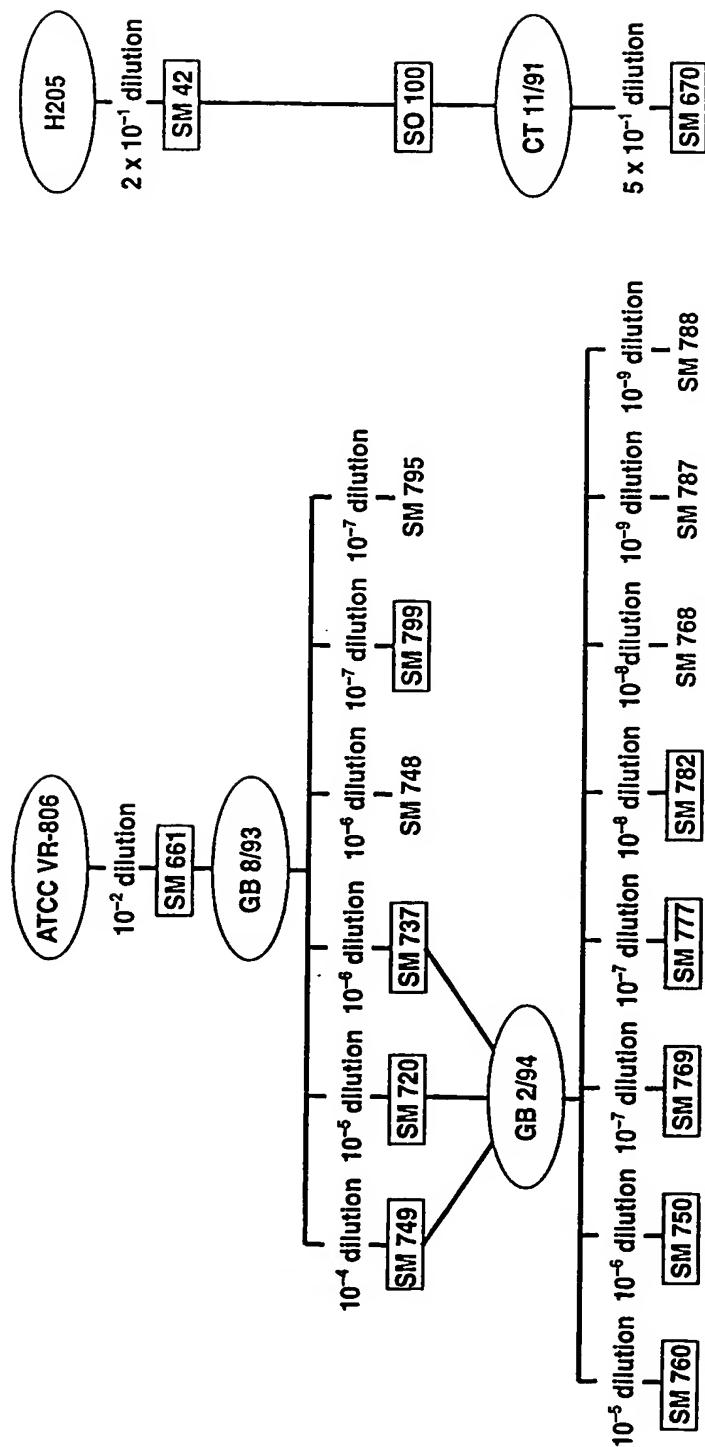
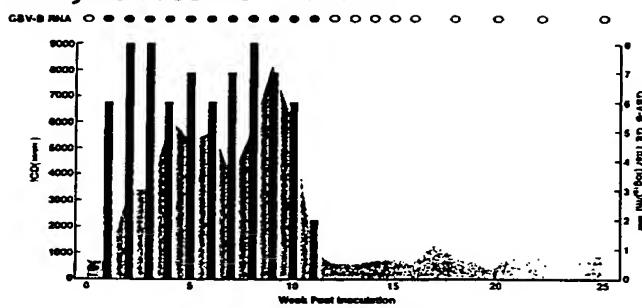
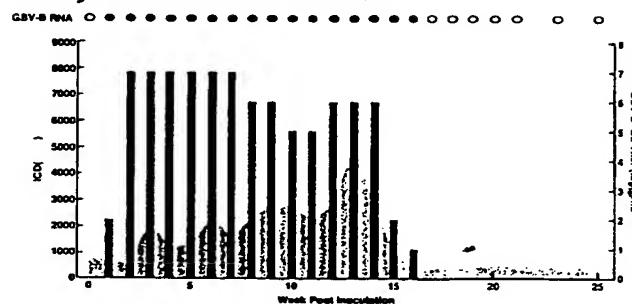
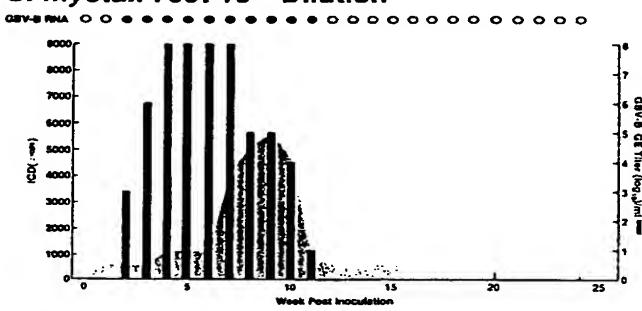
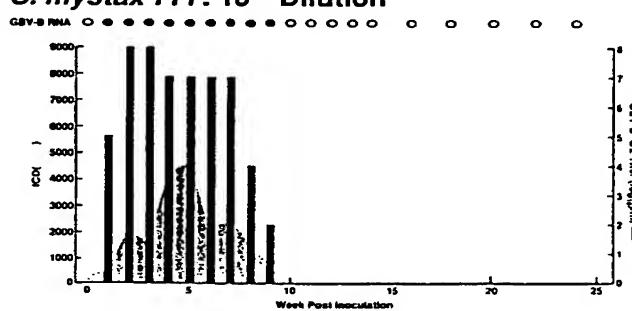
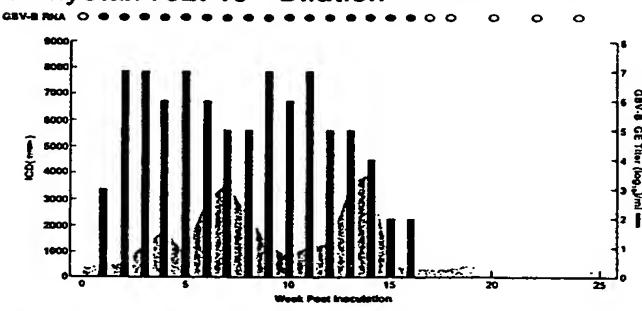
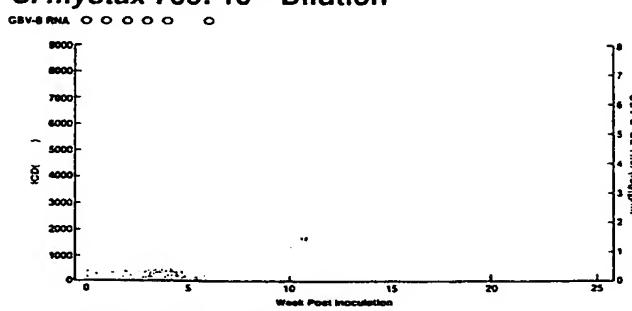
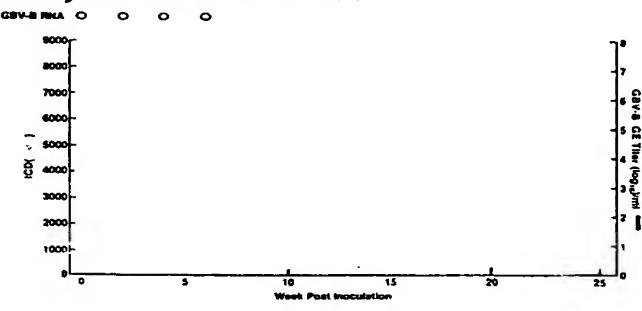
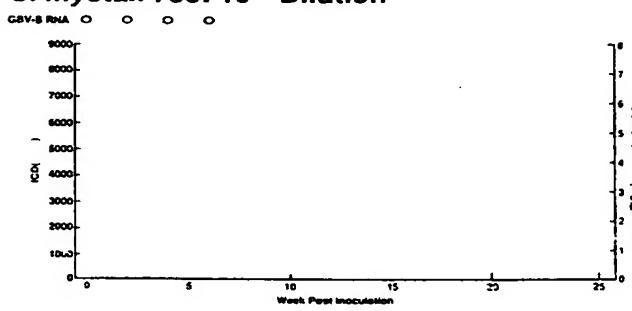


1/21

FIG. 1

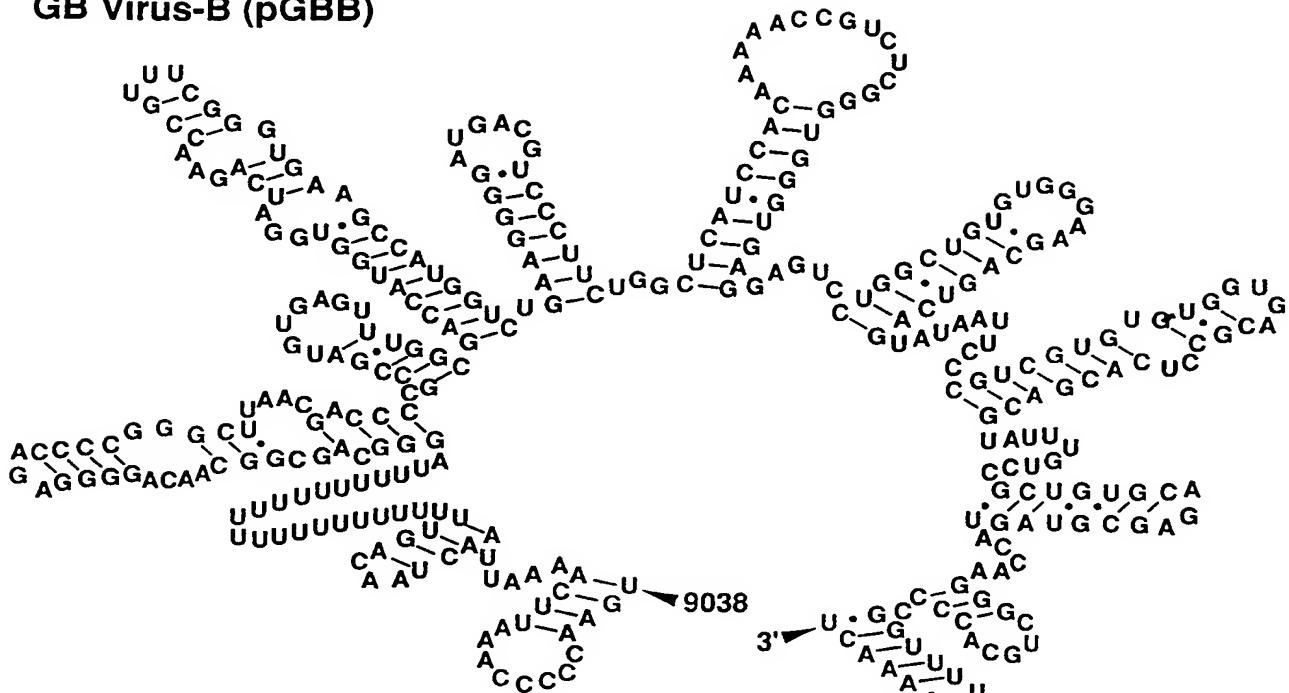
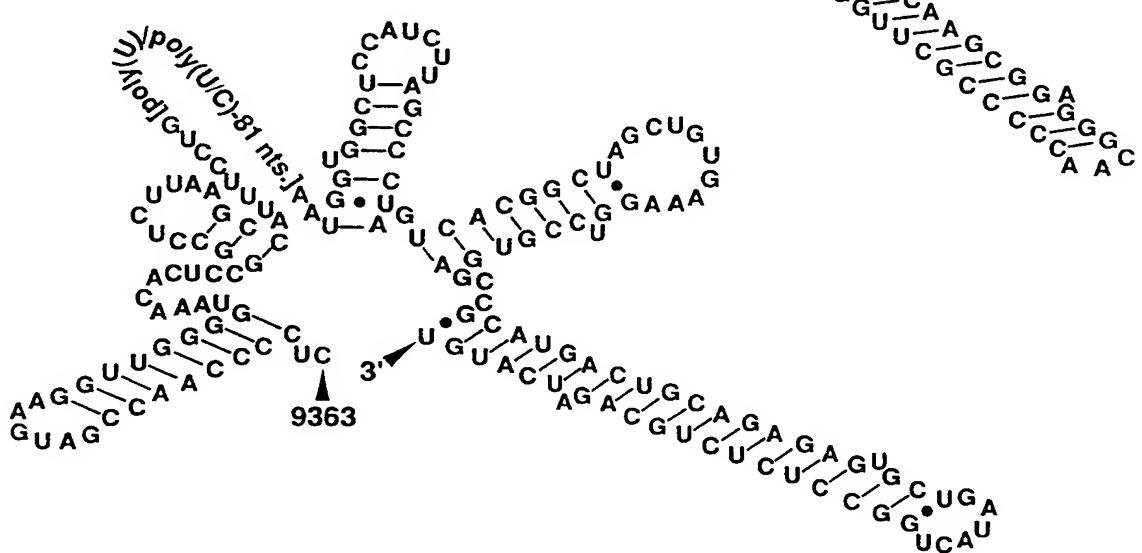


2/21

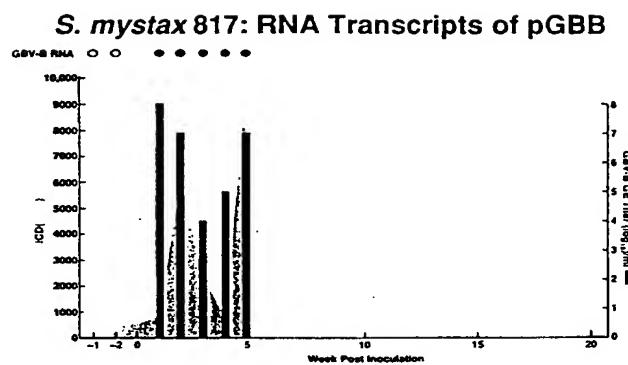
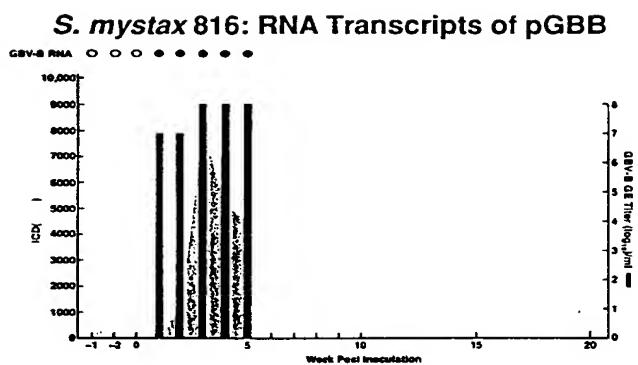
FIG. 2***S. mystax* 760: 10^{-5} Dilution*****S. mystax* 750: 10^{-6} Dilution*****S. mystax* 769: 10^{-7} Dilution*****S. mystax* 777: 10^{-7} Dilution*****S. mystax* 782: 10^{-8} Dilution*****S. mystax* 768: 10^{-8} Dilution*****S. mystax* 787: 10^{-9} Dilution*****S. mystax* 788: 10^{-9} Dilution**

3/21

FIG. 3

FIG. 4**GB Virus-B (pGBB)****Hepatitis C Virus (pCV-H77C)**

5/21

FIG. 5

H77C

10	20	30	40	50
<u>1234567890</u>	<u>1234567890</u>	<u>1234567890</u>	<u>1234567890</u>	<u>1234567890</u>
GGCAGCCCCC	TGATGGGGGC	GACACTCCAC	CATGAATCAC	TCCCGTGTGA
GGAACCTACTG	TCTTCAGCA	GAAAGGGTCT	AGGCCATGGG	TTAGTATGAG
TGTCGTCAG	CCTCCAGGAC	CCCCCTTCCC	GGGAGAGCCA	TAGTGGTCTG
OGGAACCGGT	GAGTACACCG	GAATTGCCAG	GACCGACGGG	TCCTTCTCTG
GATAAAACCGG	CTCAATGCT	GGAGATTTCG	GGTGGCGGCG	GCAAGACTGC
TAGCGGAGTA	GTGTTGGTC	GGAAAAGGCC	TTGTTGGTACT	GCCTGATAGG
GTGCTTGCGA	GTGCGCGGGG	AGGTCTCGTA	GACCGTGAC	CATGACCAAG
AATCCCTAAC	CTCAAAGAAA	AAACAAAGT	AAACACCAAC	GTUGCGACACA
GGAOGTCAAG	TTCCCCGGTG	GGGGTCAGAT	GGTGGTGGGA	TTTTACTTGT
TGCGCGGCCAG	GGGCGCTAGA	TTGGGTGTG	GGGGAGGAG	GAAGACTTCC
GAGGGTGTGC	AAACCTGGAGG	TAGAOGTCAG	CTTATCCCCA	AGCCAOGTGG
GGCGGAGGGC	AGGACCTGGG	CTCAAGCGG	GTACCCCTGG	CCCCCTCTATG
GCAATGAGGG	TTGCGGGTGG	GGGGGATGGC	TOCTGTCCTC	GGTGGCCTCT
GGGCGTAGCT	GGGGGACCCAC	AGACCCCCGG	GGTAGGTGCG	GCAATTGGG
TAAGGTCAATC	GATACCCTTA	GGTGGCGCTT	CCCCGACCTC	ATGGGGTACA
TACCGCTGAT	GGGGGCGGCT	CTTGGAGGGC	CTGCGAGGGC	CTGGGGCGAT
GGGGTACCGGG	TTCTGGAAAGA	GGGGGTGAAAC	TATGCAACAG	GGAACCTTCC
TGGTGTCTCT	TTCTCTATCT	TOCTTCCTGGC	CTCTGCTCTCT	TCCTGACTG
TGCCCCGCTTC	AGCCTACCAA	GTGGCGCAATT	CTCTGGGCT	TTACCATGTC
ACCAATGATT	GGCCCTAACTC	GAGTATTGTC	TACCGGGGGG	GGGATGCGCAT
CTCTGACACT	GGGGGGTGTG	TCCTTGGGT	GGGGAGGGT	AAAGGCTUGA
GGTGGTGGGT	GGGGGTGACG	CCCCGGTGG	CCACCGGGGA	GGGCAAACTC
CCACACAOGC	AGCTTGGAGG	TCATATGAT	CTGCTTGTG	GGAGGGGOCAC
CTCTGCTCG	GGCCCTCTACG	GGGGGGACCT	GTGGGGCT	GTCTTCTTG
TTGGTCAACT	GTCTTACCTTC	TCTCCAGGC	GGCACTGGAC	GAOGCAAGAC
TGCAATTGTT	CTATCTATOC	GGGCGATATA	ACGGGTCAATC	GCATGGCATG
GGATATGATG	ATGAACTGGT	GGCCCTAOGGC	ACGGTTEGTG	GTAGCTCPGC
TGCTCGGGAT	GGGCGAGGCG	ATCATGGACA	TGATGGCTGG	TGCTCACTGG
GGAGTGGTGG	GGGGCGATAGC	GTATTTCTCC	ATGGTGGGGA	ACTGGGGGAA
GGTGGCTGGTA	GTCTCTGGC	TATTTGGCGG	GGTGGAGGGG	GAACACCGAG
TCACCGGGGG	AAATGGCGGGC	GGCACCAACGG	CTGGGGCTTGT	TGGTCTCTTT
ACACCAAGGG	CCAAGGAGAA	CACTCAACTG	ATCAACACCA	ACGGCAGTGT
GCACATCAAT	AGCAOGGCCT	TGAATTGCAA	TGAAAGGCTT	AAACACGGCT
GGTTAGGAGG	GCTCTCTAT	CAACACAAAT	TCAACTCTTC	AGGCTGTCT
GAGAGGGTGG	GGGGGGTGG	GGGGGGTGG	GGGGGGTGG	GGGGGGTGG
TCCTATCAGT	TATGCGAACG	GAAGGGGGCT	GGGGGGTGG	GGGGGGTGG
GGCACTACCC	TCGAAGACCT	TGTTGGCATIG	TGCCCCGAAA	GGGGGTGGTGT
GGGGGGTAT	ATTGCTTCAC	TOCCAGCCCC	GTGGTGGTGG	GAACGACCGA

10	20	30	40	50
1234567890	1234567890	1234567890	1234567890	1234567890
CAGGTGGGGC	GCGCTAACCT	ACAGCTGGGG	TGCAAATGAT	ACGGATGCT
TOGTCCCTAA	CAACACCAGG	OCAOOGCTGG	GCAATTGGTT	CGGTGIGTAC
TGGATGAAC	CAACTGGATT	CAACAAAGTG	TGGGGAGCGC	OOOCCTGIGT
CATGGGAGGG	GTGGGCAACA	ACAOCTTGCT	CTGCCCCACT	GATTGCTIOC
GCAAACATCC	CGAAGGCCACA	TACTCTCGGT	GAGGCTACGG	TOCCCTGGATT
ACACCCCAGT	GCATGGTGA	CTAACCGTAT	AGGCCTTGGC	ACTATACTTG
TACCATCAAT	TACACCATAT	TCAAAGTCAG	GATGTACGGG	GGAGGGGGT
AGCACAGGCT	GGAAGGGGOC	TGCAACTGGA	CGGGGGGGGA	AOGCTGIGAT
CTGGGAAGACA	GGGACAGGGC	CGAGCTCAGC	COGTTGCTGC	TGTOCAOCCAC
ACAGTGGCAG	GTCCTTCGGT	GTCTTTCAC	GACOCTGCGA	GOCTTGTGCA
CGGGGCTCAT	CCACCTCCAC	CAGAACATTG	TEGACGTGCA	GTACTTGTAC
GGGGTACGGT	CAAGCATOGC	GTCCTGGGCC	ATTAAGTGGG	AGTACGTGTT
TCTCCCTGTC	CTTCTGCTTG	CAGACGGGCG	GGCTCTGCTCC	TGCTTGTGGA
TGATGTIACT	CATATCCAA	GGGGAGGGGG	CTTTCGGAGAA	CCCTGTAATA
CTCAATGCAG	CATCCCTGGC	CGGGACGCGAC	GGCTCTGTT	CCCTTCCCTCGT
GTCTCTCTGC	TTTGGTGGGT	ATCTGAAGGG	TAGGTGGGTTG	CCCGGGAGGG
TCTACGCGCT	CTACGGGATG	TGGCCCTCTCC	TCTCTCTCT	GCTGGAGTTG
OCTCAGCGGG	CATAACGCACT	GGACACGGAG	GTGGGCCCGT	CGTGTGGCGG
CGTTGTTCTT	GTGGGGGTTAA	TGGCGCTGAC	TCTGTCGCCA	TATTACAAGC
GCTATATCAG	CTGGTGGCATG	TGGTGGCTTC	AGTATTTCT	GACCAAGAGTA
GAAGCCGCAAC	TGCAOGTGTG	GGTTCCCCCCC	CTCAACGTCC	GGGGGGGGCG
CGATGCCGTC	ATCTTACTCA	TGTTGTTAGT	ACACCCGACC	CTGGTATTG
ACATCACCAA	ACTACTCTG	GCCATCTCG	GACCCCTTIG	GATTCCTCAA
GCCAGTTTGC	TTAAAGTCCC	CTACTCTG	CGCGTCAAG	CCCTTCTCOG
GATCTGCCCG	CTAGGGCGGA	AGATAGCGG	AGGTCATTAC	GIGCAAATCG
CCATCATCAA	GTIAGGGCG	CTTACTGCA	CTTATGTTA	TAACCATCTC
ACCCCTCTTC	GAGACTGGGC	GCACAAACGGC	CTGCGAGATC	TGGCGTGGC
TGTGGAACCA	GTGGCTTCT	CGCGAATGGA	GACCAAGCTC	ATCAOGTGG
GGGCAGATAAC	CGGGGGGTGC	GGTGTACATCA	TCAACGGCTT	GGGGGTCTCT
GGGGGTAGGG	CCCAAGGAGAT	ACTGCTTGGG	CCAGGGGAOG	GAATGGTCTC
CAAGGGGTGG	AGGTCTCTGG	CGCCCATCAC	GGCGTACGCC	CAGCAGAOGA
GAGGGCTCT	AGGGTGTATA	ATCACCAAGCC	TGACTGGCG	GGACAAAAAC
CAAGTGGAGG	GTGAGGTCCA	GATGTGTTCA	ACTGCTAACCC	AAACCTTCT
GGCAANGTCA	ATCAATGGGG	TATGCTGGAC	TCTGTACAC	GGGGCGGGAA
CGAGGACCAT	CGCATCACCC	AAGGGTCTG	TCATCCAGAT	GTATACCAAT
GTGGACCAAG	ACCTTGTGGG	CTGGCCCGCT	CTCAAGGTT	CGCGCTCATT
GACACCCCTGT	ACCTGCGGCT	CCTCGGACCT	TTACCTGGTC	AOGAGGGCAOG
COGATGTCA	TCGGCTGCGC	CGGGGAGGTG	ATAGCAEGGG	TAGGCTGCTT
				3800

8/21

H77C

10	20	30	40	50
1234567890	1234567890	1234567890	1234567890	1234567890
TGCCCCCGGC	CCATTTCTTA	CTTGAAAGGC	TACTGGGGG	GTCGGCTGTT
GTGCCCCGGG	GGACACGGGG	TGGGCTATT	CAGGGGGGGG	GTGTCGCAAC
GTGGAGTGGC	TAAAGGGGIG	GACTTTATCC	CTGTGGAGAA	CCTAGGGACA
ACCATGAGAT	CCCCGGTGTG	CAOGGACAAAC	TCTCTCTCAC	CAGCAGTGOC
CCAGAGCTTC	CAGGTGGGCC	AACCTGCATGC	TCCCACGGGC	ACCGGTAAGA
CCACCAAGGT	CGGCGCTGCG	TAOGGAGGCC	AGGGCTACAA	GGTGTGGGTG
CTCAACCCCT	CTGTTCTGTC	AACGCTGGGC	TTTGTGCTT	ACATGTGCAA
GGCCCATGGG	GTGATCTTA	ATATCAGGAC	GGGGGTGAGA	ACAATTAA
CTGGCAGGCC	CATCAOGTAC	TOCACTAAG	GCAAGTTCTT	TGCGGACGGC
GGGTGCTCAG	GAGGTGGTTA	TGACATAATA	ATTTGTGAGG	AGTGCACCTC
CACGGATGCC	ACATCCATCT	TGGGCATCGG	CACTGTCTT	GACCAAGCAG
AGACTGGGGG	GGCGAGACTG	GTGTTGCTCG	CCACTGCTAC	CCCTGGGGC
TCGGTCACTG	TGTCCTCATCC	TAACATCGAG	GAGGTTGCTC	TGTCACACCAC
CGGAGAGATC	CCCTTTTAAG	GCAAGGCTAT	CCCCCTGGAG	GTGATCAAGG
GGGAAGACA	TCTCATCTTC	TGCCACTCAA	AGAAGAAGTG	CGACCGAGCTC
GGCGCGAAGC	TGGTGGCATT	GGGCATCAAT	GGCGTGGCT	ACTACGGGG
TCTTGACGIG	TCTGTCACTC	CGACCCAGGG	CGATGTGTC	GTGTTGCTGA
CCGATGCTCT	CATGACTGGC	TTAACCGGGG	ACTTCGACTC	TGTGATAGAC
TGCAACACGT	GTGTCACCTA	GACAGTGGAT	TTCAGCCTTG	ACCTTACCTT
TACCATTTGAG	ACAACCAAGC	TCOCCCAGGA	TGCTGCTCTC	AGGACTCAAC
GGGGGGGCAG	GACTGGCAGG	GGGAAGCCAG	GCATCTATAG	ATTGTGGCA
CGGGGGGAGC	GGGGCTCGGG	CATGTTGGAC	TOGTCGGTCC	TCTGTGAGTG
CTATGACGGG	GGCTGTGCTT	GGTATGAGCT	CAAGGGGGCC	GAGACTACAG
TTAGGCTACG	AGCGTACATG	AAACACCGGG	GGCTTCGGT	GTGCGAGGAC
CATCTTGAAT	TTTGGGAGGG	CGCTTTCAGG	GGGCTCACTC	ATATAGATGC
CCACTTTITA	TOCCAGACAA	AGCAGAGTGG	GGAGAACTTT	CTTACCTGG
TAGCGTACCA	AGCCACGGG	TGGGCTAGGG	CTCAAGGCCC	TCOCCCAGG
TGGGACCCAGA	TGTGGAAAGTG	TTTGTATCGC	CTAAACCCA	CCCTOCATGG
GCACACACCC	CTGCTATACA	GACTGGGCGC	TGTTCAAGAT	GAAGTCACCC
TGACGGCAACCC	AAATCACAAA	TACATCATGA	CATGCATGTC	GGCGGACCTG
GGGGTGGTCA	CGAGCACCTG	GGTGTCTGGT	GGGGGGGTCC	TGCTGCTCT
GGGGGGGTAT	TGGCTGTCAA	CAGGCTGGT	GGTCATAGTG	GGCAGGATCG
TCTTGTCGG	GAAGGGGGCA	ATTATACTG	ACAGGGAGGT	TCTCTACCTAG
GAGTTGGATG	AGATGGAAGA	GTGCTCTCAG	CACTTACCGT	ACATGAGCCA
AGGGATGATG	CTGGCTGAGC	AGTCAAGCA	GAAGGGCTC	GGCTTCCTGC
AGACCGGGTC	CGGCGATGCA	GAGGTATICA	CCCTGCTGT	CCAGACCAAC
TGGCAGAAAC	TCGAGGTCTT	TTCGGCGAAG	CACATGTGGA	ATTCACTCAG
TGGGATACAA	TACTTGGGGG	GGCTGTCAAC	CTGCTCTGGT	AACCCCGCCA
				5700

9/21

10009002
PCT/US00/15293

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TTGCTTCATT	GATGGCTTTT	ACAGCTGCGG	TCACCAGGCC	ACTAACCACT	5750
GGCCAAACCC	TCTCTTCAA	CATATGGGG	GGGTGGGTGG	CTGGCCAGCT	5800
AGCGGCCCCC	GGTGCGGCTA	CTGCGTTGT	GGGTCTGGC	CTAGCTGGG	5850
CCCACATCGG	CAGGGTTGGA	CTGGGGAAGG	TOCTCGTGG	CATTCTTGC	5900
GGGTATGGCG	CGGGGCTGGC	GGGAGCTCTT	GTAGCATTCA	AGATCATGAG	5950
CGGTGAGGTC	CCCTCCAOOG	AGGACCTGGT	CAATCTGCTG	CGGGGCGATCC	6000
TCTCGACTGG	AGGCGCTGTA	GTGGGTTGG	TCTGGGCGAGC	AATACTGCGC	6050
CGGCAOGTTG	GGGGGGGCGA	GGGGGCGAGTG	CAATGGATGA	ACGGGCTAAT	6100
AGGCTTCGCC	TCCCCGGGGA	ACCATGTTTC	CCCGAOGCAC	TAOGTGGGG	6150
AGAGCGATGC	AGGGGGCGGC	GTCACTGCGA	TACTCAGCAG	OCTCACTGTA	6200
ACCCAGCTCC	TGAGGGCGACT	GCATCAGTGG	ATAAGCTGG	AGTGTACAC	6250
TCCATGCTCC	GGTCTCTGGC	TAACGGACAT	CTGGGACTGG	ATATGCGAGG	6300
TGCTGAGCGA	CTTTAAGACG	TGGCTGAAAG	CCAAGCTCAT	CCACACAATG	6350
CCTGGGATTG	CCCTTGTGTC	CTGCCAGCGC	GGGTATAGGG	GGGTCTGGCG	6400
AGGAGACGGC	ATTATGCACA	CTGGCTGCGA	CTGTGGAGCT	GAGATCACTG	6900
GACATGTCAA	AAACCGGGACG	ATGAGGATCG	TCGGTCTTAG	GAACCTGCGAG	6950
AAACATGTGGA	GTGGGACGTT	CCCCATTAAAC	CCCTACACCA	CGGGGCGCTG	6550
TACTCCCTT	OCTGGCGCGA	ACTATAAGTT	CGGGCTGTTG	AGGGTGTCTG	6600
CAGAGGAATA	CGTGGAGATA	AGGGGGGTGG	GGGACTTCCA	CTACGTATCG	6650
GGTATGACTA	CTGACAATCT	TAAAATGGCGG	TGCCAGATCC	CATGGCGCGA	6700
ATTTTCACA	GAATTGGACG	GGGTGGCGCT	ACACAGGTTT	GGGGGGCGCTT	6750
GCAAGGCGCTT	CTGGCGGGAG	GAGGTATCAT	TCAGAGTAGG	ACTCCACGAG	6800
TACCOGGTGG	GGTGGCAATT	ACCTTGCGAG	CCCGAACCGG	ACGTAGCGGT	6850
GTGACGTCG	ATGCTCACTG	ATGCCCTCCA	TATAACAGCA	GGGGGGCGCG	6900
GGAGAAGGTT	GGGGAGAGAGG	TCACCCCGTT	CTATGGCCAG	CTGGCTGGCT	6950
AGCCAGCTGT	CCGCTCCATC	TCTCAACCGA	ACTTGACCG	CCAAACCATGA	7000
CTCCCCCTGAC	GGCGAGCTCA	TAGAGGCTAA	OCTGGTGGG	AGGCAGGGAGA	7050
TGGCGGGCAA	CATCACCAAGG	GTGAGTCAG	AGAACAAAGT	GGTGATTCTG	7100
GACTCTTCG	ATCGGCTTGT	GGCAGAGGAG	GTGAGCGGG	AGGTCTCGT	7150
ACCTGCGAGAA	ATTCCTGCGGA	AGTCTCGGAG	ATTCGGCGCG	GGGGGGCGCG	7200
TCTGGGGCGG	GGGGGACTAC	AAACCCCGGC	TAGTAGAGAC	GTGGAAAAAG	7250
CCTGACTACG	AACCAACCTGT	GGTCCATGGC	TGCGGGCTAC	CAACCTCCACG	7300
GTCCCCCTCT	GTGGCTCCGC	CTGGGAAAAAA	CGGTAAAGGTG	GTGGCTACCG	7350
AATCAACCCCT	ATCTACTGCC	TTGGCGGAGC	TTTCACCAA	AAGTTTGCGC	7400
AGCTCTCAA	CTTCGGCGAT	TAACGGCGGAC	AATACCGACAA	CATCCCTCTGA	7450
GGGGGGCGCTT	TCTGGCTGCC	CCCCGGACTC	CGAOGTTGAG	TCCTATTCTT	7500
CCATGGGGCCC	CTGGGAGGGGG	GAGCTGGGG	ATCCCGATCT	CAGGGACGGG	7550
TCATGGTCGA	CGGTCACTAG	TGGGGCGAC	ACCGAAGATG	TGGTGGCTG	7600

FIG. 6D

10/21

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
CTCAATGCT TATCCCTGG AAGGCGACT CGTCACCGG TGCGCTGGG					7650
AAGAACAAAA ACTGCCATC AACGCCATGA GCAACTGTT GCTAAGGCCAT					7700
CACAATCTGG TGTATCCAC CACTCACGC AGTGCCTGCC AAAGGCAGAA					7750
GAAAGTCACA TTTGACAGAC TGCAAGTTCT GGACAGGCCAT TACCGAGGAG					7800
TGCTCAAGGA GGTCAAAGCA GGGGGTCAA AAGTGAAGGC TAACCTGCTA					7850
TOGGTAGAGG AAGCTTGCAG CCTGACGCGC CCACATTCAG CCAAATCCAA					7900
GTTGGCTAT GGGGCAAAAG ACGTGGTGTG CCATOCAGA AAGGCGGTAG					7950
CCACACATCAA CTGGTGTTGG AAAGAOCCTC TGGAAAGACAG TGTAACACCA					8000
ATAGACACTA CCATCATGGC CAAGAACGAG GTTTCTGCC TTCAGCTGA					8050
GAAGGGGGT CGTAAGGCCAG CTGGTCTCAT CGTGTTCGGG GACCTGGGCG					8100
TGCGCGTGCG CGAGAAGATG GCGCTGTACG ACGTGGTTAG CAAGCTCCCG					8150
CTGGCGTGA TGGGAAGCTC CTACGGATTCA AATACTCAC CAGGACAGCG					8200
GGTGAATTCT CTGGTCAAG CGTGGAAAGTC CAAGAAGACC CGATGGGGT					8250
TCTCGTATGA TACGGCTGT TTGACTCCA CAGTCACTGA GAGCGACATC					8300
CGTACGGAGG AGGCAATTCA CCAATGTTGT GACCTGGACC CCGAAGCCCG					8350
CGTGGCCATC AAGTCCCTCA CTGAGAGGCT TTATGTTGGG GGCCCTCTTA					8400
CCAATTCAAG GGGGAAAAC TCGGGCTACC GCAGGGCGCG CGCGAGCGGC					8450
GTACTGACAA CTAGCTGTGG TAACACCCCTC ACTTGCTACA TCAAGCCCCG					8500
GGCAGGCTGT CGAGCGCGAG GGCTCCAGGA CTGGCACCATG CTGGTGTTGG					8550
GCGACGACTT AGTGGTATC TGIGAAAGTG CGGGGGTCCA GGAGGAAGGCG					8600
GCGAGGCTGA GAGCTTCAC GGAGGCTATG ACCAGGTACT CGGCCCCCCC					8650
GGGGGACCCCC CCACAAACAG AATACGACTT GGAGCTTATA ACATCATGCT					8700
CCTCCAAACGT GTCACTGCGC CACGAGGGCG CTGGAAAGAG GGTCTACTAC					8750
CTTACCGCTG ACCCTACAAC CCGCTCGCG AGAGCGCGT GGGAGACAGC					8800
AAGACACACT CCAGTCAATT CCTGGCTAGG CAACATAATC ATGTTGGCC					8850
CCACACTGTG GCGGAGGATG ATACTGATGA CCCATTCTT TAGCGTCTTC					8900
ATAGCCAGGG ATCAAGCTGA ACAGGCTCTT AACTGIGAGA TCTACGGAGC					8950
CTGGTACTCC ATAGAACAC TGGATCTACC TCCAATCAATT CAAAGACTCC					9000
ATGGCCTCAG CGCATTCTCA CTGGACAGTT ACTCTCCAGG TGAAATCAAT					9050
AGGGTGGCGG CATGGCTCAG AAAACTGGG GTCCCCGCGCT TGGGAGCTTG					9100
GAGACACCGG GCGCGGAGCG TCGGGCTAG GCTTCTGCC AGAGGAGGCA					9150
GGGCTGCCAT ATGTGGCAAG TACCTCTTCA ACTGGGCAGT AAGAACAAAG					9200
CTCAAACCTCA CTCCAATAGC GCGCGCTGGC CGGCTGGACT TGTGGGTG					9250
GTTCACGGCT CGCTACAGCG GGGGAGACAT TTATCACAGC GTGCTCATG					9300
CGCGGCGCCCG CTGGGTCTGG TTTTGCTAC TCCCTGCCCGC TGGAGGGTA					9350
GGCATCTACC TCCCTCCCCAA CGGATGAAGG TTGGGGTAAA CACTCCGGCC					9400
TCTTAAGCCA TTTCTGTGTT TTTTTTTTTT TTTTTTTTTT TTTTCTTTT					9450
TTTTTTCTT TCCCTCTTCTT CTTTTTTTCC TTTCTTTTCC CCTCTTTAA					9500

11/24

H77C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TGGTGGCTCC	ATCTTAGGCC	TAGTCACGGC	TAGCTGIGAA	AGGTGGTGA	9550
GGCGCATGAC	TGCAGAGAGT	GCTGATACTG	GCCTCTCTGC	AGATCATGT	9599

12/21

WO 00/75337

H77C

10	20	30	40	50
1234567890	1234567890	1234567890	1234567890	1234567890
MSINPKPQRK	TKRNINRRPQ	DVKFPGGQI	VGGVLLPRR	GPRLGVRAIR
KTSERSQPRG	RRQPIPKARR	PEGRIWAQPG	YPWPLYGNEG	OGWAGWLSP
RGSRPSWGPT	DPRRRSRNLG	KVIDILTOGF	ADIMGYIPLV	GAPLGGAARA
LAHGVRVLED	GVNYATGNLP	GCSFSIFLLA	LLSCLTVPAS	AYQVRNSSL
YHVINDCPNS	SIVYEAADAI	LHTPGCVPCV	REGNASRCW	AVTPIVATRD
GKLPTTQLRR	HIDLLVGSAT	LCSALYVGDL	CGSVFLVGQL	FIFSPRRHWT
TQDQNCSIYP	GHITGHRMAW	IMMMNWSPA	ALVVAQLLRI	PQAIMDMIAG
AHWGVLAGIA	YFSMVGNWAK	VLVVLLLFAG	VDAEIHVTGG	NAGRITAGLV
GLLTPGAKQN	IQLININGSW	HINSTALNCN	ESLNIGWLAG	LFYQHKFNSS
GCPERLASCR	RLTDFAQGWG	PISYANGSGL	DERPYCHYP	PROGIVPAK
SVCGPVYCFT	PSPWVGTID	RSGAPTYSWG	ANDIDVFVLN	NIRPPLGNWF
GCTWMNSTGF	TKVOGAPPVC	IGGVGNNTLL	CPTDCFRKHP	EATYSRCGSG
PWITPRCMVD	YPYRLWHYPC	TINYTIKFVR	MYVGGVEHRL	EAACNWTRGE
RCDLEDRDRS	ELSPLLLSTT	QWQVLPCSFT	TIPALSTIGLI	HLHQNIVDQ
YLYGVGSSIA	SWAIKWEYVV	LLFLLIADAR	VCSCLWMMILL	ISQAEAALEN
LVLNAASLA	GTHGLVSFLV	FFCFAWYLKG	RWVPGAVYAL	YGMWPLLLL
IALPQRAYAL	DTEVAASOCGG	VVLVGLMALT	LSPYYKRYIS	WCMMWLQYFL
TRVEAQLHW	VPPLNWRGGR	DAVILIMCVV	HPTLVFDITK	LLLAIFGPLW
ILQASILLKVP	YFVRVQGLLR	ICALARKIAG	GHVQMAIIK	LGALTGTYVY
NHLTPLRDWA	HNGLRDLAVA	VEPVVFSRME	TKLITWGADT	AACGDIINGL
PVSARRGQEI	LLGPADGMVS	KGWRLLAPIT	AYAQQTREGLL	GCIITSLTGR
DKNQVEGEVQ	IVSTATQTFL	ATCINGVCWT	VYHGAGTRTI	ASPKGPVIQM
YTINVQDLVG	WPAPOGSRSL	TPCTCGSSDL	YLMTRHADVI	PVRRRGDSRG
SLLSPRPISY	LKGSSGGPLL	CPAGHAVGLF	RAAVCTRGVA	KAVIDFIPVEN
LGTIMRSPVF	TDNSSPPAVP	QSFQVAHLHA	PTGSGKSTKV	PAAYAAQGYK
VLVLPNSVAA	TLGFGAYMSK	AHGVDPNIRT	GVRTITTGSP	ITYSTYGF
ADGGCGGGAY	DIICDECHS	TDATSILGIG	TVLDQAETAG	ARLWVLATAT
PPGSVTVSHP	NIEEVALSTT	GEIPFYGKAI	PLEVIKGRH	LIFCHSKKKC
DELAALKVAL	GINAVAYYRG	LDVSVIPTSG	DWWVSTDAL	MIGFTGDFDS
VIDCNICVIQ	TVDFSLDPITF	TIEETTILPQD	AVSRTQRRGR	TGRGKPGIYR
FVAPGERPSG	MFDSSVLCEC	YDAGCAWYEL	TPAETTVRLR	AYMNTPGLPV
CQDHLEFWEG	VFTGLTHIDA	HFLSQTKQSG	ENFPYLVAYQ	ATVCARAQAP
PPSWDQMWC	LIRLKPTLHG	PTPLLYRLGA	VQNEVILTHP	ITKYIMTOMS
ADLEVVTSTIW	VLVGGVLAAL	AAVCLSTGCV	VIVGRIVLSG	KPAIIPDREV
LYQEFDEMEE	CSQHLPYIEQ	GMMLABQFKQ	KALGLLQTA	RHAEVITPAV
QTNWQKLEV	WAKHMNFIS	GIQYLAGLST	LPGNPAAIASL	MAFTAATISP
LTTGQTLFN	ILGGWAAQL	AAPGAATAFV	GAGLAGAAIG	SVGLGKVLVD
ILAGYGAGVA	GALVAFKIMS	GEVPSTEDLV	NLLPATLSPG	ALVVGWCAA

FIG. 6G

13 | 21

H77C

10	20	30	40	50
1234567890	1234567890	1234567890	1234567890	1234567890
ILRRHVGPGGE	GAVQWMNRLI	AFASRGNAVS	PIHYVPESDA	AARVIAILSS
LTVTQLLRRRL	HOWISSECTT	PCSGSWLRDI	WDWICEVLSD	FKIWLKAKLM
PQLPGIPFVS	CQGYRGWWR	GDGIMHIRCH	CGAETIGHVK	NGIMRIVGPR
TCRNMSGIF	PINAYTTGPC	TPLPAPNYKF	AIWRVSAEY	VEIRRVGDFH
YVSGMTIDNL	KCPOQIPSPE	FFTELDGVRL	HRFAPPCKPL	LREEVSFRVG
LHEYPVGSQ	PCEPEPDVAV	LTSMLTDPSH	ITAEAAAGRRL	ARGSPPSMAS
SSASQLSAPS	LKATCTANHD	SPDAELIEAN	LLWRQEMGGN	ITRVESENKV
VILDSDFDPLV	AEEDEREVSV	PAETILRKSRR	FARALFWAR	PDYNPPLVET
WKKPDYEPV	VHGCPLPPP	SPPVPPPRKK	RIVVLTESTIL	STALAAELATK
SFGSSSTSGI	TGDNTTISSE	PAPSGCPPDS	DVESYSSMPP	LEGEPGDPDL
SDGSWSIVSS	GADTEDWVCC	SMSYSWIGAL	VTPCAAAEOK	LPINALNSNL
LRHHNLVYST	TSRSACQROK	KVTFDRLQVL	DSHYQDVILKE	VKAASASKVKA
NLLSVEEACS	LTPPHSAKSK	FGYGAKDVRC	HARKAVAHIN	SWKDLLEDS
VTPIDTTIMA	KNEVFCVQPE	KGGRKPARLI	VFPDLGVRVC	EKMALYDWVS
KLPLAVMGSS	YGFQYSFGQR	VEFLVQAWKS	KKTRPMGFSYD	TRCFDSTIVTE
SDIRTEEAITY	QCQCDLDPQAR	VAIKSLTERL	YVGGPLINSR	GENCGYRRCR
ASGVLTTSOG	NTLTCYIKAR	AACRAAGLQD	CIMLVCGDDL	VVICESAGVQ
EDAASLRAFT	EAMTRYSAPP	GDPPQPEYDL	ELITSCSSNV	SVAHDGAGKR
VYYLTRDPIT	PLARAAWETA	RHTPVNSWLG	NIIMFAPIIW	ARMILMHFF
SVLIARDQLE	QALNCETYGA	CYSIEPLDLP	PIIQRLHGLS	AFSLHSYSPG
EINRVAACLR	KLGVPPPLRAW	RHRARSVRAR	LLSRGGRAAI	CGKYLFWNAV
RTKLKLTPIA	AAGRLLLSGW	FTAGYSGGDI	YHSVSHARPR	WFWFCLLLL
AGVGTIYLLNR	R			3011

FIG. 6H

HC-J4

10	20	30	40	50
1234567890	1234567890	1234567890	1234567890	1234567890
GCCAGCCCCC	TGATGGGGC	GACACTAAC	CATGAATCAC	TCCCCGTGAA
GGAACCTACTG	TCTTCACGCA	GAAAGCGCT	AGCCATGGCG	TTAGTATGAG
TGTGTTGCAG	CCTCCAGGAC	CCCCCTCOOC	GGGAGAGCCA	TAGGGCTCTG
CGGAACCGT	GAGTACACCG	GAATTGCCAG	GACCGAOGGG	TCCCTTCTTG
GATCAACCGG	CTCAATGCGT	GGAGATTTCG	GGTGGGCCCCC	GCGAGACTGC
TAGCCGAGTA	GTGTTGGTC	GGAAAAGGCG	TTGTTGGTACT	GCCTGATAGG
GTGCTTGCAG	GTGCCCCGGG	AGGCTCTGTA	GACCGTGCAC	CATGAGCAAG
AATCTAAAC	CTCAAAGAAA	AACCAACGT	AACACCAACC	GCGGCCACA
GGACGTCAG	TTCCCGGGCG	GTGGTCAGAT	CGTTGGTQGA	GTTCACCTGT
TGCGCGGCAG	GGGCCCCCAGG	TTGGGTTGTC	GGCGGACTAG	GAAGGCTTCC
GAGCGGTGCG	AACCTCGTGG	AAGGGGACAA	OCTATCCAA	AGGCTCGCG
ACCCGAGGGC	ACGGGCTCTGG	CTCAGCGCGG	GTAACCTTGG	CCCGCTATG
GCAATGAGGG	CCTGGGGTGG	GCAGGGATGGC	TCCGTGTCACC	CCCGGGCTCC
CGGCCCTAGTT	GGGGCCCCAC	GGACCCCGG	CGTAGGTGCG	GTAACTTGGG
TAAGGTCATC	GATAACCTTA	CATGCGGCTT	CGCCGATCTC	ATGGGGTACA
TTGGCTGAGT	CGGGGGGGGG	CTAGGGGCG	CTGGCAGGGC	CTGGCACAC
GGTGTCCGGG	TTCTGGAGGA	CGGCGTGAAC	TATGCAACAG	GGAACCTGCC
CGGTGCTCT	TTCTCTATCT	TOCTCTTGGC	TCTGCTGTC	TGTTTGACCA
TOCCAGCTTC	CGCTTATGAA	GTGCGCAACG	TGTCAGGGAT	ATACCATGTC
ACGAACGACT	GCTCAACTC	AAGCATTGIG	TATGAGGGAG	CGGACGTGAT
CATGCATACT	CCCGGGTGCG	TGCGCTGIGT	TCAGGGGGT	AACAGCTCCC
GTGCTGGGT	AGCGCTCACT	CCACCGCTCG	CGGCCAGGAA	TGCGAGCGTC
CCCACTACGA	CAATACCGACG	CCACGTCAC	TTGCTCGTIG	GGACGGCTGC
TTTCTGCTOC	CTATGTACG	TGCGGGATCT	CTGGCGATCT	ATTTTCTCG
TCTCCAGCT	GTTCACCTTC	TGCGCTCGCC	GGCATGAGAC	AGTGCAGGAC
TGCAACTGCT	CAATCTATCC	CGGCCATGTA	TCAGGGTCACC	GCATGGCTTG
GGATATGATG	ATGAACCTGGT	CACCTACAAC	AGCCCTAGTG	GTGTCGCACT
TGCTCCGGAT	CCACACAAGCT	GTGCGGACA	TGGTGGGGGG	GGCCACACTGG
GGAGTCTGG	CGGGCCTTGC	CTACTTATCC	ATGGTAGGGA	ACTGGGCTAA
GGTTCTGATT	GTGGCGCTAC	TCTTGCGCGG	CGTTGACGGG	GAGACCCACA
CGACGGGGAG	GGTGGCGGGC	CACACCACT	CGGGGTTCAC	GTCCCTTTTC
TCATCTGGG	CGTCTCAGAA	AATCCAGCTT	GTGAATACCA	ACGGCAGCTG
GCACATCAAC	AGGACTGCC	TAAATTGCAA	TGACTCCCTC	CAAACCTGGGT
TCTTGCGCG	GCTGTTTAC	GCACACAAGT	TCAACTCGTC	CGGGTGGCG
GAGCGATGG	CCAGCTGCCG	CCCCATTGAC	TGGTTCGCC	AGGGGTGGGG
CCCCATCAAC	TATACTAAGC	CTAACAGCTC	GGATCAGAGG	CCATTATTGCT
GGCATTACGC	GCCTCGACCG	TGTGGTGTG	TACCCCGCGTC	GCAGGTGTGT
GGTCCAGTGT	ATTGTTTAC	CCCAAGCCCT	GTGTTGGTGG	GGACCACCGA
				1900

FIG. 7A

10	20	30	40	50
1234567890	1234567890	1234567890	1234567890	1234567890
TCGTTCCGGT	GTCCTAACGT	ATAGCTGGGG	GGAGAAATGAG	ACAGACCGTGA
TGCTCCTCAA	CAACACGGGT	CCGCCCCACAAG	GCAACTGGTT	CGGCTGTACA
TGGATGAATA	GTACTGGGTT	CACTAAGACG	TGCGGAGGTC	CCCGGTGIAA
CATGGGGGGG	GTOGGTAACC	GCACCTTGAT	CTGCCCCACG	GACTGCTTCC
GGAAGCACCC	CGAGGGCTACT	TACACAAAAT	GTGGCTCGGG	GGCGTGGTIG
ACACCTAGGT	GCCTAGTAGA	CTACCCATAC	AGGCTTIGGC	ACTAOCOCTG
CACTCTCAAT	TTTTCATCT	TTAAGGTAG	GATGTATGTG	GGGGGCGTGG
AGCACAGGCT	CAATGOOGCA	TGCAATTGGA	CTCGAGGAGA	CGCTGTAAAC
TTGGAGGACA	GGGATAGGTC	AGAACTCAGC	CGCTGCTGC	TGCTCTACAAC
AGAGTGGCAG	ATACTGCGCT	GTGCTTCAC	CACCCCTACG	GCTTTATCCA
CTGGTTTGT	CCATCTCCAT	CAGAACATCG	TGGACGTGCA	ATACCTGTAC
GGTGTAGGGT	CAGCGTTGT	CTCCTTGCA	ATCAAATGGG	AGTACATCCT
GTTGCTTTTC	CTTCCTCTGG	CAGACGGGGG	CGTGTGIGOC	TGCTTGTGGA
TGATGCTGCT	GATAAGCCCAG	GCTGAGGCGG	CCCTAGAGAA	CTGGGGGGTC
CTCAATGCGG	CGTCAGTGGC	CGGAGCGCAT	GGTATTCTCT	CTTTCTTGT
GTTCTCTGC	GGCGCGTGGT	ACATTAAGGG	CAGGCTGGCT	CTGGGGGGGG
CGTATGCTTT	TTATGGCGTA	TGGCGCGTGC	TCCTGCTCCT	ACTGGCGTIA
CCACCAOGAG	CTTAOGCGTT	GGACCGGGAG	ATGGCTGCAT	CGTGGGGGGG
TGCGGTTCTT	GTAGGTCTGG	TATTCTTGAC	CTTGTACCCA	TACTACAAAG
TGTTTCTCAC	TAGGCTCATA	TGGTGGTTAC	AATACTTTAT	CACCAAGGCC
GAGGCGCACA	TGCAAGTGTG	GGTCCCCCCC	CTCAACGTTG	GGGGAGGGCG
CGATGCCATC	ATCCTCTCA	CGTGTGCGGT	TCATCCAGAG	TTAATTITIG
ACATCACCAA	ACTCCTGCTC	GCATACTCG	GGCGCTCAT	GGTGCCTCAG
GCTGGCATAA	CGAGAGTGCC	GTACTTGTG	CGCGCTCAAG	GGCTCATTG
TGCAATGCATG	TTAGTGCAGAA	AAGTGGCGGG	GGTCATTAT	GTCAAAATGG
TCTTCATGAA	GCTGGGGGGG	CTGACAGGTA	CGTAQGTTA	TAACCATCTT
ACCCCACTGC	GGGACTGGGC	CCACCGGGGC	CTAOGAGACC	TTGCGGGTGGC
GGTAGAGGCC	GTGCTCTCT	CGGCCATGGA	GACCAAGGTC	ATCACCTGGG
GAGCAGACAC	CGCTCGTGT	GGGGACATCA	TCTTGGGTCT	ACCOGCTCC
GGCCGAAGGG	GGAGGAGAT	ATTTTGGGA	CGCGCTGATA	GTCTCGAAGG
GCAAGGGTGG	CGACTCTCTG	CGCCCATCAC	GGCTACTCC	CAACAAACGC
GGGGCGTACT	TGGITGCATC	ATCACTAGCC	TCACAGGCG	GGACAAGAAC
CAGGTCGAAG	GGGAGGTTCA	AGTGGTTCT	ACCGCAACAC	AACTTTCTT
GGCGACCTGC	ATCAACGGGG	TGTGCTGGAC	TCTCTACCAT	GGCGCTGGCT
CGAAGACCGT	AGCGCGTCA	AAAGGTOCAA	TCACCCAAAT	GTACACCAAT
GTAGACCTGG	ACCTGTCGG	CTGGCGAGGCG	CCCCCGGGGG	CGCGCTCCAT
GACACCATGC	AGCTGTGGCA	GCTCGGACCT	TTACTTGGTC	ACGAGACATG
CTGATGTCAT	TCCCGTGCCTC	CGGGCGAGGCG	ACACCAAGGGG	AAGTCTACTC
				3800

FIG. 7B

16/21

HC-J4

10	20	30	40	50
<u>1234567890</u>	<u>1234567890</u>	<u>1234567890</u>	<u>1234567890</u>	<u>1234567890</u>
TCCCCCAGGC	CGGTCTCCCA	CCTGAAAGGC	TCCTGGGIG	GTCATTTGCT
TTGACCTTGG	GGGCAOGTGG	TGGGGGTCTT	CGGGCTGCT	GIGGGCAOCC
GGGGGGTCTG	GAAGGGGGTG	GACITCATAC	CGITGGAGTC	TATGGAAACT
ACCATGGGTT	CTCCGGTCTT	CACAGACAAC	TCAAOCOC	CGGCTGTACC
GCAGACATTG	CAAGTGGCAC	ATCTGCAOGC	TOCTACTGGC	AGOGGGCAAGA
GCAOCAAAGT	GGGGGCTGOG	TATGCAGGCC	AAGGGTACAA	GGGGCTGCTG
CTGAAACCGT	CGGTGCGGCG	CAOCTTAGGG	TTTGGGGGOT	ATATGTCCAA
GGCACACGGT	ATCGAACCTA	ACATCAGAAC	TGGGGTAAGG	ACCATTACCA
GGGGGGGCTC	CATTACGTAC	TCCACCTATG	GCAAGTCT	TGGGGACGGT
GGCTGTTCTG	GGGGGGGCTA	TGACATCAT	ATATGTGATG	AGTGCGACTC
AACTGACTCG	ACTACCATCT	TGGGCATOGG	CACAGTOCTG	GACCAAGGG
AGACGGCTGG	AGCGGGGCTC	GTGGTGTG	CCACOGCTAC	AOCTGGGGA
TGGGTTACCG	TGCCACACCC	CAATATCGAG	GAAATAAGGCC	TGTCACACAA
TGGAGAGATC	CCCTTCTATG	GCAAAGOCAT	COCCATTGAG	GCCATCAAGG
GGGGGAGGCA	TCTCATTTC	TGCCATTCCA	AGAAGAAATG	TGACGGAGCTC
GGGGCAAAGC	TGACAGGCGT	GGGACTGAAC	GCTGTAGCAT	ATTACCGGGG
CCITGATGTG	TCGGICATAC	CGGCTATCGG	AGACGTGTT	GTGGTGGCAA
CAGACGCTCT	AATGACGGGT	TTCACGGCG	ATTTTGACTC	AGTGATCGAC
TGCAATACAT	GTGTCAACCA	GACAGTCGAC	TTCAGCTTGG	ATCCCACCTT
CAACCATGAG	ACGACGGACCG	TGCCCCAAGA	GGGGGTTGCG	CGCTCGAAC
GGGGAGGTAG	AACTGGCAGG	GGTACGGAGTG	GCATCTACAG	TTTGTGACT
CCAGGAGAAC	GGGGCTGGG	CATGTTGAT	TCTTGGTCC	TGTGTGAGTG
CTATGACCG	GGCTGTTGCTT	GGTATGAGCT	CAACGGCGCT	GAGACCTCGG
TTAGGTTGCG	GGCTTACCTA	AATACACCAAG	GGTTGCGCGT	CTGCGAGGAC
CATCTGGAGT	TCTGGGAGAG	CGTCTTACACA	GGGCTCACCC	ACATAGATCC
CCACTTCTG	TOCCAGACTA	AACAGGGCAGG	AGACAACCTT	CCTTACCTGG
TGGCATATCA	AGCTACAGTG	TGGCGCGAGG	CTCAAGCTCC	AOCTCCATCG
TGGGACAAA	TGTGGAAGTG	TCTCATACGG	CTGAAACCTA	CACTGCAOGG
GCACACACCC	CTGCTGTATA	GGCTAGGAGC	CGTCAAAAT	GAGGTCACTC
TCACACACCC	CATAACTAAA	TACATCATGG	CATGCACTG	GGCTGACCTG
GAGGTGTC	CTAGCACCTG	GGTCTGGTA	GGGGAGTCC	TTGCACTTT
GGGCGCATAC	TGCGTGAOGA	CAGGCAGTGT	GGTCATTGIG	GGCAGGATCA
TCTTGTCCGG	GAAGCCAGCT	GTGGTTCGG	ACAGGGAACT	OCTCTACCAAG
GAGTGGATG	AGATGGAAGA	GTGTGCTCA	CAACTTCTT	ACATGAGCA
GGGAATGCAG	CTGGCGGAGC	AATTCAAGCA	AAAGGGCGTC	GGGTGTTG
AAACGGGACAC	CAAGCAAGCG	GAGGCTGCTG	CTGGGGTCTG	GGAGTCACAG
TGGGGAGGCC	TTGAGACCTT	CTGGGGGAAG	CACATGTGGA	ATTTCATCAG
CGGAATACAG	TACCTAGCAG	GCTTATCCAC	TCTGCGTGG	AAACCCGGCGA

17/21

HC-J4

10	20	30	40	50
<u>1234567890</u>	<u>1234567890</u>	<u>1234567890</u>	<u>1234567890</u>	<u>1234567890</u>
TAGCATCATT	GATGGCATT	ACAGCTTCTA	TCACTAGGCC	GCTCAACCAC
CAAAACACCCC	TCCCTGTTAA	CATCTGGGG	GGATGGGTGG	CTGGCCCAACT
CGCTCTCTCC	AGGGCTGGT	CAGCTTCGT	GGGGGGGGGC	ATGGGGGGAG
CGGCTGTTGG	CAGCATAGGC	CTTGGGAAGG	TGCTTGTTGA	CATCTTGGCG
GGCTATGGGG	CAGGGGTAGC	GGGGGGCACTC	GTGGCTTTA	AGGTCATGAG
GGGGGAGGTG	GGCTAACCGG	AGGACCTGGT	CAACTTACTC	CTTGOCATCC
TCTCTCTGG	TGCCCCGGTC	GTGGGGGTGG	TGTGCGCAGC	AATACTGGGT
GGGCAAGTGG	GGGGGGGAGA	GGGGGGCTGTG	CAGTGGATGA	ACGGGCTGAT
AGGGTGGCT	TGGGGGGGTA	ACCAAGCTTC	CCCTAACGAC	TATGTGGCTG
AGAGGGAGCC	TGGAGCACGT	GTCACTCAGA	TCCTCTCTAG	CTTAAACCATC
ACTCAACTGC	TGAAGGGGCT	CCACCGAGGG	ATTAATGAGG	ACTGCTCTAC
GGCATGCTCC	GGCTGGTGGC	TAAGGGATGT	TGGGGATGG	ATATGCAOGG
TGTTGACTGA	CTTCAAGAAC	TGGCTCCAGT	CCAAACTCT	GGGGGGGTAA
GGGGGAGTOC	CTTCTCTGTC	ATGCAAACGC	GGGTACAAGG	GAGTCCTGGG
GGGGGACGGC	ATCATGCAAA	CCACCTGCC	ATGGGGAGCA	CAGATGGGGG
GACATGTCAA	AAACGGTTC	ATGAGGATCG	TAGGGCTTAG	ACACCTGCAGC
AACACGTGGC	ACGGAAACGT	CCCATCAAC	GCATACACCA	GGGGACCTTG
CACACCCCTCC	GGGGGGGCCA	ACTATTCCAG	GGGGCTATGG	GGGGTGGCTG
CTGAGGGAGTA	GGTGGAGGTT	ACGGGTGTTG	GGGATTTCGA	CTACGTGACG
GGCATGACCA	CTGACAACGT	AAAGTGGCCA	TGCCAGGTTT	GGGGCCCCGA
ATTCTTCACG	GAGGTGGATG	GAGTGGCGTT	GCACAGGTAC	GCTGGGGCGT
GCAAACCTCT	TCTACGGGAG	GAAGTCACGT	TCCAGGTGG	GCTCAACCAA
TACTTGGTGG	GGTGGCAGCT	CCCATGGGAG	GGGGAAACGG	AGTAAACAGT
GCTTACTTCC	ATGCTCAACG	ATCCCCCTCA	CATTACAGCA	GAGACGGCTA
AGGGTGGCT	GGCTAGAGGG	TCTCCCCCT	CTTGTAGCCAG	CTCATCAGCT
AGOCAGTTGT	CTGGCGCTTC	TTTGAAGGCG	ACATGCACTA	CCCACCATGA
CTCCCCGGAC	GCTGACCTCA	TOGAGGCCAA	CTCTTGTGG	GGGCAGGAGA
TGGGGGGAAA	CATCACTCGC	GTGGAGTCAG	AGAATAAGGT	AGTAATTCTG
GACTCTTCTG	AAACGGCTCA	GGGGGGAGGG	GATGAGAGGG	AGATATCGT
GGGGGGGGAG	ATCTCTCGAA	AACTCAGGAA	GTCCCCCTCA	GGGTGCGCA
TATGGGCACG	GGGGACTAC	AACTCTCCAC	TGCTAGAGTC	CTGGAAAGGAC
GGGGACTACG	TCCCCCTGGT	GGTACACGGG	TGCCCATTCG	CACTTACCAA
GGCTCTCTCA	ATACCACCTC	CACTGGAGAAA	GAAGGAGGGT	GTGCTGACAG
AATCCAATGT	GTCTCTGTC	TTGGGGAGC	TGCCCCACTAA	GAACCTGGGT
AGCTCCGGAT	GGTGGGCGGT	TGATAGGGC	ACGGGGACCG	CCCTTCTGTA
CCTGGCCCTCC	GACGACGGTG	ACAAAGGATC	GGACGGTGGAG	TGTTACTCT
CCATGCCCCCC	CCTTGAAGGG	GAGGGGGGGG	ACCCCGATCT	CAGCGAOGGG
TCTTGGTCTA	GGTGGAGTGA	GGAGGCTAGT	GAGGATGTGG	TCTGCTGCTC
				7600

HC-J4

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
AATGTCCTAT	ACGTGGACAG	GCGCCCTGAT	CAAGCCATGC	GCTGGGGAGG	7650
AAAGTAAAGCT	GCCTCATCAAC	CGGTTGAGCA	ACTCTTTGCT	GCGTCACAC	7700
AACATGGCTC	AAGGCCACAAC	ATCCCGCAGC	GCAAGGCTCC	GGCAGAAGAA	7750
GGTCACCTTT	GACAGATTGC	AAGTCTGGA	TGATCATTAC	CGGGACGTCAC	7800
TCAAGGAGAT	GAAGGGGAAG	GGTTOCACAG	TTAAGGCCTAA	GCTCTATCT	7850
ATAGAGGAGG	OCTGCAAGCT	GAOGCCCCCA	CATTOGGCCA	AATOCAAATT	7900
TGGCTATGGG	GCAAAGGACG	TCGGAAACT	ATCCAGGAGG	GGGTTAAC	7950
ACATCGCTC	CGTGTGGGAG	GACTTGCTGG	AAGACACTGA	AACACCAATT	8000
GACACCAACCA	TCATGGAAA	AAGTGAGGTT	TTCCTGGTCC	AACCGAGAGAA	8050
GGGAGGCGC	AAGCCAGCTC	GCCTTATCGT	ATTCAGAGAC	CTGGGAGITC	8100
GTGTATGCGA	GAAGATGGC	CTTACGACG	TGGCTCCAC	CCTCTCTCAG	8150
GCGTGATGG	GCTCTCATA	CGGATTCAA	TACTCCOCCA	AGCAGGGGT	8200
CGAGTTCTG	GTGAATACCT	GGAAATCAA	GAAATGOCCT	ATGGGCTTCT	8250
CATATGACAC	CGCTGTTT	GACTCAAOGG	TCACTGAGAG	TGACATTGCT	8300
GTGAGGAGT	CAATTACCA	ATGTTGTGAC	TTGGCCCCCG	AGGCCAGACA	8350
GGCCATAAGG	TCGCTCACAG	AGGGCTTTA	CATAGGGGGT	CCCTGACTA	8400
ACTCAAAGG	GCAGAACTGC	GGTTATGCC	GGTGCAGCGC	AAGTGGGGIG	8450
CTGACGACTA	GCTGGGTAA	TACCTCACA	TGTTACTTGA	AGGCCACTGC	8500
AGCCTGTCGA	GCTGCAAAGC	TCCAGGACTG	CAAGATGCTC	GTGAACGGAG	8550
ACGACCTTGT	GGTATCTGT	GAAAGCGCGG	GAACCCAGGA	GGATGCGGGCG	8600
GCCCTACGAG	CTTCACCGA	GGCTATGACT	AGGTTATCG	CCCCCCCCCCGG	8650
GGATCCGCC	CAACCAGAAT	AOGACCTGGA	GCTGATAACA	TCATGTTCT	8700
CCAATGTGTC	AGTGGGGCAC	GATGCATCTG	GCAAAAGGGT	ATACIACCTC	8750
ACCCGTGACC	CCACCACCCC	CCTTGCACGG	GCTGGTGGG	AGACAGCTAG	8800
ACACACTCCA	ATCAACTCTT	GGCTAGGCCA	TATCATCATG	TATGCGCCCA	8850
CCCTATGGC	AAAGGATGATT	CTGATGACTC	ACTTTTCTC	CATCCTCTA	8900
GCTCAAGAGC	AACTTAAAAA	AGGCCCTGGAT	TGTCAGATCT	ACGGGGCTTG	8950
CTACTCCATT	GAGCCACTTG	ACCTACCTCA	GATCATTGAA	CGACTCCATG	9000
GTCTTAGGGC	ATTTACACTC	CACAGTTACT	CTCCAGGTGA	GATCAATAGG	9050
GTGGCTTCAT	GCCTCAAGAA	ACTTGGGGTA	CCACCCCTGC	GAACCTGGAG	9100
ACATCGGCC	AGAAGTGTGC	GCGCTAACGT	ACTGTCCCCAG	GGGGGGAGGG	9150
CGOCGACTTG	TGGCAGATAC	CTCTTAACT	GGGCAGTAAG	GACCAAGCTT	9200
AAACTCACTC	CAATCCCCGC	CGCGTCCCCAG	CTGGACTTGT	CTGGCTGGTT	9250
CGTGGCTGGT	TACAGGGGG	GAGACATATA	TCACAGCTG	TCTCGTGCGC	9300
GACCCCGCTG	GTTCCTGGT	TGCTTACTGC	TACTTCTGT	AGGGGTAGGC	9350
ATTTACCTGC	TCCCCAACCG	ATGAACGGGG	AGCTAACAC	TCCAGGCTT	9400
AAGCCATTTC	CTGTTTTTTT	TTTTTTTTT	TTTTTTTTT	TCTTTTTTT	9450
TTCTTCTCT	TTCTTCTCTT	TTTCTCTTC	TTTCTCTT	CTTAAATGGT	9500

FIG. 7E

19|21

10	20	30	40	50
<u>1234567890</u>	<u>1234567890</u>	<u>1234567890</u>	<u>1234567890</u>	<u>1234567890</u>
GGCTCCATCT	TAGCCCTAGT	CACGGCTAGC	TGTGAAAGGT	CGGTGAGCGG
CATGACTGCA	GAGAGTGCTG	ATACTGGCT	CTCTGCAGAT	CATGT

10	20	30	40	50
1234567890	1234567890	1234567890	1234567890	1234567890
MSINPKPQRK	TKRNINRRPQ	DVKFPGGQI	VGGVYLLPRR	GPRLGVRATR
KASERSQPRG	RRQPIPKARR	PEGRAWAQPG	YPWPLYGNEG	LGWAGWILLSP
RGSRPSWGPT	DPRRRSRNLG	KVIDTILTCGF	ADLMGYIPLV	GAPLGGAARA
LAHGVRVLED	GVNYATGNLP	GCSFSIFILLA	LLSCLTIPAS	AYEVNVSGI
YHVINDCSNS	SIVYEAAVI	MHTPGCVPCV	QEGNSSROW	ALTPTLAARN
ASVPTTTIRR	HVDLLVGIAA	FCSAMYVGDL	OGSIFLVSQ	FTFSPRRHET
VQDONCSTYP	GHVSGHRMAW	DMMMNWSPIT	ALWSQLLRI	PQAWDMVAG
AHWGVLAGLA	YYSMGNWAK	VLIVALLFAG	VDGETHTTGR	VAGHTSGFT
SLFSSGASQK	IQLVNINGSW	HINRTALNCN	DSLQTGFFAA	LFYAHKFNS
GCPERMASCR	PIDWFAQGNG	PITYTKPNSS	DQRPYCWHY	PRPOGVVPAS
QVOGPVYCFT	PSPVAVGFTD	RSGVPTYSWG	ENETDVMLLN	NIRPPQGNWF
GCTWMNSTIGF	TKTOGGPPCN	IGGVGNRIL	CPTDCFRKHP	EATYIKCGSG
PWLTPRCLVD	YPYRLWHYPC	TINFSIFKVR	MYVGGVEHRL	NAACNWIRGE
RCNLEDRDRS	ELSPLLLSTT	EWQILPCAFT	TLPALSTGLI	HLHQNIVDVQ
YLYGVGSAFV	SFAIKWEYL	LLFLILLADAR	VCACIWMML	IAQAEAALEN
LVVLNAASVA	GAHGILSFLV	FFCAAQYIKG	RLAPGAAYAF	YGWPPLLLL
LALPPRAYAL	DREMAASCQG	AVLVGLVFLT	LSPYYKVFLT	RLIWWLQYFI
TRAEAHMQW	VPPLNVRGGR	DAIILJTCAV	HPELIFDTIK	LLIAILGPLM
VLQAGITRVP	YFVRAQGLIR	ACMLVRKVAG	GHYQMVFMK	LGALTGTIVY
NHLTPLRDWA	HAGLRDLAVA	VEPVVFSAME	TKVITWGADT	AAQGDIILGL
PVSARRGKEI	FLGPADSLEG	QGWRLIAPIT	AYSQQTRGVL	QCIITSLTGR
DKNQVEGEVQ	WSTATQSFL	ATCINGVWT	VYHGAGSKIL	AGPKGPITQM
YTINVDDLVG	WQAPPGARSM	TPCSOQSSDL	YLVIRHADV	PVRRRGDSRG
SLLSPRPVSY	LKGSSQGPLL	CPSGHVGVF	RAAVCTRGVA	KAVDFIIPES
METIMRSPVF	TDNSTPPAVP	QTFQVAHLHA	PTGSGKSTKV	PAAYAAQGYK
VLVLPNSVAA	TLGFGAYMSK	AHGIDPNIRT	GVRTTTGGS	ITYSTYKFL
ADGGCSGGAY	DIIICDECHS	TDSTTILGIG	TVLDQAETAG	ARLWVLATAT
PPGSVTVPHP	NIEEIGLSNN	GEIPFYGKAI	PIEAIKGGRH	LIFCHSKKKC
DELAAKLTGL	GLNAVAYYRG	LDVSVIPPIG	DWWVATDAL	MTGFTGDFDS
VIDCNICVTQ	TVDFSILDPTF	TIETTIVPQD	AVSRSQRGR	TGRGRSGIYR
FVTPGERPSG	MFDSSVLCEC	YDAGCAWYEL	TPAETSVRLR	AYLNTPGLPV
CQDHLEFWES	VFTGLTHIDA	HFLSQTKQAG	DNFPLYVAYQ	ATVCARAQAP
PPSWDQMWC	LIRLKPTLHG	PTPLLYRLGA	VQNEVILTHP	ITKYIMACMS
ADLEVVTSTW	VLVGGVLAAL	AAVCLTTGSV	VIVGRIILSG	KPAVVPDREV
LYQEFDEMEE	CASQLPYTEQ	GMQLAEQFKQ	KALGLLQQTAT	KQAEAAAPVV
ESKWRALETF	WAKHMMNFIS	GIQYLAGLST	LPGNPATIASL	MAFTASITSP
LTTQNTLLFN	ILGGWAAQL	APPSAASAFV	GAGIAGAAVG	SIGLGKVLD
ILAGYAGVA	GALVAFKUMS	GEVPSTEDLV	NLLPAIILSPG	ALVVGVVCAA
				1900

10	20	30	40	50
1234567890	1234567890	1234567890	1234567890	1234567890
ILRRHVGPGGE GAVQWMNRLI AFASRGNHVS PIHYVPESDA AARVIQILSS				1950
LTTTQLLKRL HOWINEDCST PCSGSWL RDV WDWICIVLTD FKIWLQSLL				2000
PRLPGVPFLS CQGYKGWWR GDGIMQTTCP OGAQIAGHVK NGSMRIVGPR				2050
TCSNTWHGIF PINAYTTIGPC TPSPAPNYSR ALWRAVAEEY VEVIRVGDFH				2100
YVTGMITIDNV KCPOQVPAPE FFTEVDGVRL HRYAPACKPL LREDVTFQVG				2150
LNQYLVGSQQL PCEPEPDVIV LTSMLTDPSH ITAETAKRRL ARGSPPSLAS				2200
SSASQLSAPS LKATCTIHHD SPDADLIEAN LIWRQEMGN IIRVESENKV				2250
VILDSSFEPHL AEGDEREISV AAETILRKSRK FPSALPIWAR PDYNPPLIES				2300
WKDPDVYVPPV VHGCPLPPIK APPIPPRRK RIWVLIESNV SSALAELATK				2350
TFGSSGSSAV DSGIATALPD LASDDGDKGS DVESYSSMPP LEGEPGDPDL				2400
SDGSWSIVSE EASEDWCCS MSYTWTGALI TPCAAEESKL PINPLSNSLL				2450
RHHNMVYATT SRSASLRQKK VTFDRILQVLD DHYRDVLKEM KAKASTVKAK				2500
LLSIEEACKL TPPHSAKSKF GYGAKDVRNL SSRAVNHIRS WEDLLEDIE				2550
TPIDITTIMAK SEVFCVQPEK GGRKPARLIV FPDLGVRVCE KMALYDVVST				2600
LPQAVMGSSY GFQYSPKQRV EFLVNIWKS KCPMGFSYDT RCFDSTVTES				2650
DIRVEESTIYQ CCDLAPEARQ AIRSLITERLY IGGPLTNSKG QNOGYRRCRA				2700
SGVLTTSQGN TLTCYLKATA ACRAAKLQDC TMLVNGDDLV VICESAGIQE				2750
DAAALRAFE AMTRYSAPPG DPPQPEYDLE LITSCSSNVS VAHDASGKRV				2800
YYLTRDPITP LARAAWETAR HTPINSWLGN IIIMYAPTLWA RMILMTFFS				2850
ILLAQEQOLEK ALDCQIYGAC YSIEPLDLPO IIERLHGLSA FTIHSYSPGE				2900
INRVASCLRK LGVPLRLTWR HRARSVRAKL LSQGGRAATC GRYLFNWAVR				2950
TKLKLTPIPA ASQLDLSGWF VAGYSGGDIY HSLSRARPRW FPLCLLILSV				3000
GVGIYLLPNR				3010

FIG. 7H